

0570
1019

OIE

CRF Errors Corrected by the STIC Systems Branch

CRF Processing Date: 10/25/2001
Edited by: *[Signature]*
Verified by: *[Signature]* (STIC stat)

Serial Number: 09/965,594

ENTERED

Changed a file from non-ASCII to ASCII

Changed the margins in cases where the sequence text was 'wrapped' down to the next line.

Edited a format error in the Current Application Data section, specifically:

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____

Added the mandatory heading and subheadings for "Current Application Data".

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

Changed the spelling of a mandatory field (the headings or subheadings), specifically:

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

Inserted colons after headings/subheadings. Headings edited included: ..

Deleted extra, invalid, headings used by an applicant, specifically:

Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file;
 page numbers throughout text; other invalid text, such as _____

Inserted mandatory headings, specifically:

Corrected an obvious error in the response, specifically:

Edited identifiers where upper case is used but lower case is required, or vice versa.

Corrected an error in the Number of Sequences field, specifically:

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected:

Other:

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

#2

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/965,594

DATE: 10/25/2001
TIME: 08:46:14

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\10252001\I965594.raw

5 <110> APPLICANT: Wittekind, Michael
 7 Weinheimer, Steven
 9 Zhang, Yaqun
 11 Goldfarb, Valentina
 15 <120> TITLE OF INVENTION: Modified Forms of Hepatitis C NS3 Protease for
 17 Facilitating Inhibitor Screening and Structural Studies
 19 of Protease:Inhibitor Complexes
 23 <130> FILE REFERENCE: DB17Sequences
 C--> 27 <140> CURRENT APPLICATION NUMBER: US/09/965,594
 C--> 29 <141> CURRENT FILING DATE: 2001-09-27
 33 <150> PRIOR APPLICATION NUMBER: 60/115,271
 35 <151> PRIOR FILING DATE: 1999-01-08
 39 <160> NUMBER OF SEQ ID NOS: 26
 43 <170> SOFTWARE: PatentIn Ver. 2.0
 47 <210> SEQ ID NO: 1
 49 <211> LENGTH: 182
 51 <212> TYPE: PRT
 53 <213> ORGANISM: Hepatitis C virus
 57 <400> SEQUENCE: 1
 59 Met Ala Pro Ile Thr Ala Tyr Ala Gln Gln Thr Arg Gly Leu Leu Gly
 61 1 5 10 15
 65 Cys Ile Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly
 67 20 25 30
 71 Glu Val Gln Ile Val Ser Thr Ala Ala Gln Thr Phe Leu Ala Thr Cys
 73 35 40 45
 77 Ile Asn Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Thr Arg Thr
 79 50 55 60
 83 Ile Ala Ser Pro Lys Gly Pro Val Ile Gln Met Tyr Thr Asn Val Asp
 85 65 70 75 80
 89 Lys Asp Leu Val Gly Trp Pro Ala Pro Gln Gly Ser Arg Ser Leu Thr
 91 85 90 95
 95 Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala
 97 100 105 110
 101 Asp Val Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu
 103 115 120 125
 107 Ser Pro Arg Pro Ile Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu
 109 130 135 140
 113 Leu Cys Pro Ala Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys
 115 145 150 155 160
 119 Thr Arg Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu
 121 165 170 175
 125 Glu Thr Thr Met Arg Ser
 127 180
 133 <210> SEQ ID NO: 2
 135 <211> LENGTH: 549
 137 <212> TYPE: DNA
 139 <213> ORGANISM: Hepatitis C virus

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/965,594

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 149 gtcagacccct tcctggctac ctgcataaac ggtgtttgtt ggaccgttta ccacgggtct 180
 151 ggtacccgta ccatcgcttc cccgaaagggtt ccgttatcc agatgtacac caacgttgac 240
 153 aaagacacctgg ttgggtggcc ggctccgcag ggttcccggtt ccctgacccc gtgcacccgtc 300
 155 gtttcctccg acctgtacccgtt cacgctgacg ttatcccggtt tcgtcgctgt 360
 157 ggtgactccc gtggttccct gctgtccccg cgtccgatct cctacctgaa aggttccctcc 420
 159 ggtggccgc tgctgtgccc ggctggtcac gctgtggta tcttcgtgc tgctgttgtc 480
 161 acccggtggtg ttgctaaagc ttgtgacttc atcccggttg aatccctgga aaccaccatg 540
 163 cgttcctcta 549

167 <210> SEQ ID NO: 3

169 <211> LENGTH: 195

171 <212> TYPE: PRT

173 <213> ORGANISM: Hepatitis C virus

177 <400> SEQUENCE: 3

179 Met Lys Lys Lys Gly Ser Val Val Ile Val Gly Arg Ile Val Leu Asn
 181 1 5 10 15
 185 Gly Ala Tyr Ala Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr
 187 20 25 30
 191 Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Ile
 193 35 40 45
 197 Val Ser Thr Ala Ala Gln Thr Phe Leu Ala Thr Cys Ile Asn Gly Val
 199 50 55 60
 203 Cys Trp Thr Val Tyr His Gly Ala Gly Thr Arg Thr Ile Ala Ser Pro
 205 65 70 75 80
 209 Lys Gly Pro Val Ile Gln Met Tyr Thr Asn Val Asp Lys Asp Leu Val
 211 85 90 95
 215 Gly Trp Pro Ala Pro Gln Gly Ser Arg Ser Leu Thr Pro Cys Thr Cys
 217 100 105 110
 221 Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val Ile Pro
 223 115 120 125
 227 Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro
 229 130 135 140
 233 Ile Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys Pro Ala
 235 145 150 155 160
 239 Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg Gly Val
 241 165 170 175
 245 Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu Thr Thr Met
 247 180 185 190

251 Arg Ser Pro

253 195

259 <210> SEQ ID NO: 4

261 <211> LENGTH: 588

263 <212> TYPE: DNA

265 <213> ORGANISM: Hepatitis C virus

269 <400> SEQUENCE: 4

271 atgaaaaaaaaa aagggtccgt tgttatcgctc ggccgtatag tactgaacgg tgcttacgct 60
 273 cagcagactc gaggtctgctt gggttgcattt atcacccccc tgaccggtcg tgacaaaaac 120

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Input Set : A:\PTO.AMC.txt
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275 cagggtgaag gtgaagttca gatcgttcc accgctgctc agaccttcct ggctacacctgc 180
277 atcaacgggtg tttgctggac cgtttaccac ggtgctggta cccgtaccat cgcttccccg 240
279 aaagggtccgg ttatccagat gtacaccaac gttgacaaag acctggttgg ttggccggct 300
281 cccgcagggtt cccgtccct gaccccggtc acctgctgtt cctccgacct gtacctggtt 360
283 acccgtcactg ctgacgttat cccgggtcgt cgtcggtgt actcccggtt ttccctgtg 420
285 tccccgcgtc cgatctccta cctgaaaagt tcctccgggt gtcggctgt gtgcgggct 480
287 ggtcacgctg ttggtatctt ccgtgctgt gtttgcaccc gtgggtgttc taaagctgtt 540
289 gacttcatcc cggttgaatc cctggaaacc accatgcgtt ccccggtga 588
293 <210> SEQ ID NO: 5
295 <211> LENGTH: 15
297 <212> TYPE: PRT
299 <213> ORGANISM: Hepatitis C virus
303 <400> SEQUENCE: 5
305 Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr Ser Leu Thr
307 1 5 10 15
313 <210> SEQ ID NO: 6
315 <211> LENGTH: 15
317 <212> TYPE: PRT
319 <213> ORGANISM: Hepatitis C virus
323 <400> SEQUENCE: 6
325 Gln Gln Thr Arg Gly Glu Glu Gly Cys Gln Glu Thr Ser Gln Thr
327 1 5 10 15
333 <210> SEQ ID NO: 7
335 <211> LENGTH: 15
337 <212> TYPE: PRT
339 <213> ORGANISM: Hepatitis C virus
343 <400> SEQUENCE: 7
345 Gln Gln Thr Arg Gly Glu Glu Gly Cys Gln Gln Thr Ser Glu Thr
347 1 5 10 15
353 <210> SEQ ID NO: 8
355 <211> LENGTH: 15
357 <212> TYPE: PRT
359 <213> ORGANISM: Hepatitis C virus
363 <400> SEQUENCE: 8
365 Gln Gln Thr Arg Gly Asn Gln Gly Cys Glu Lys Thr Ser Glu Thr
367 1 5 10 15
373 <210> SEQ ID NO: 9
375 <211> LENGTH: 15
377 <212> TYPE: PRT
379 <213> ORGANISM: Hepatitis C virus
383 <400> SEQUENCE: 9
385 Gln Gln Thr Arg Gly Glu Gln Gly Cys Gln Lys Thr Ser His Thr
387 1 5 10 15
393 <210> SEQ ID NO: 10
395 <211> LENGTH: 15
397 <212> TYPE: PRT
399 <213> ORGANISM: Hepatitis C virus
403 <400> SEQUENCE: 10
405 Gln Gln Thr Arg Gly Glu Gln Gly Cys Asp Glu Thr Ser Glu Thr

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/965,594

DATE: 10/25/2001

TIME: 08:46:14

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10252001\I965594.raw

407 1 5 10 15
 413 <210> SEQ ID NO: 11
 415 <211> LENGTH: 15
 417 <212> TYPE: PRT
 419 <213> ORGANISM: Hepatitis C virus
 423 <400> SEQUENCE: 11
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 427 1 5 10 15
 433 <210> SEQ ID NO: 12
 435 <211> LENGTH: 195
 437 <212> TYPE: PRT
 439 <213> ORGANISM: Hepatitis C virus
 443 <400> SEQUENCE: 12
 445 Met Lys Lys Lys Gly Ser Val Val Ile Val Gly Arg Ile Val Leu Asn
 447 1 5 10 15
 451 Gly Ala Tyr Ala Gln Gln Thr Arg Gly Glu Glu Gly Cys Gln Glu Thr
 453 20 25 30
 457 Ser Gln Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Ile
 459 35 40 45
 463 Val Ser Thr Ala Ala Gln Thr Phe Leu Ala Thr Cys Ile Asn Gly Val
 465 50 55 60
 469 Cys Trp Thr Val Tyr His Gly Ala Gly Thr Arg Thr Ile Ala Ser Pro
 471 65 70 75 80
 475 Lys Gly Pro Val Ile Gln Met Tyr Thr Asn Val Asp Lys Asp Leu Val
 477 85 90 95
 481 Gly Trp Pro Ala Pro Gln Gly Ser Arg Ser Leu Thr Pro Cys Thr Cys
 483 100 105 110
 487 Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val Ile Pro
 489 115 120 125
 493 Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro
 495 130 135 140
 499 Ile Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys Pro Ala
 501 145 150 155 160
 505 Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg Gly Val
 507 165 170 175
 511 Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu Thr Thr Met
 513 180 185 190
 517 Arg Ser Pro
 519 195
 525 <210> SEQ ID NO: 13
 527 <211> LENGTH: 588
 529 <212> TYPE: DNA
 531 <213> ORGANISM: Hepatitis C virus
 535 <400> SEQUENCE: 13
 537 atgaaaaaaa aaggatccgt tgttatcgct ggccgtatag tactgaacgg tgcttacgct 60
 539 cagcagactc gaggtgagga gggttgc当地 gaaacctccc agaccggtcg tgacaaaaac 120
 541 caggttgaag gtgaagtca gatcggttcc accgctgctc agaccttcct ggctaacctgc 180
 543 atcaacggtg tttgctggac cgtttaccac ggtgctggta cccgttaccat cgcttccccg 240
 545 aaaggtccgg ttatccagat gtacaccaac gttgacaaag acctgggtgg ttggccggct 300

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/965,594

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Input Set : A:\PTO.AMC.txt
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547 ccgcagggtt cccgttccct gaccccgtgc acctgcgggtt cctccgacct gtacactgggtt 360
 549 acccgtcacg ctgacgttat cccggttcgt cggtcggtg actcccggtg ttccctgtg 420
 551 tccccgcgtc cgatctccta cctgaaaggt tcctccgggtg gtccgctgtct gtgcccggct 480
 553 ggtcacgctg ttggatatctt ccgtgctgtct gtttgacccc gtgggtgtgc taaagctgtt 540
 555 gacttcatcc cgggtgaatc cctggaaacc accatgcgtt ccccggtga 588
 559 <210> SEQ ID NO: 14
 561 <211> LENGTH: 197
 563 <212> TYPE: PRT
 565 <213> ORGANISM: Hepatitis C virus
 569 <400> SEQUENCE: 14
 571 Met Lys Lys Lys Gly Ser Val Val Ile Val Gly Arg Ile Asn Leu Ser
 573 1 5 10 15
 577 Gly Asp Thr Ala Tyr Ala Gln Gln Thr Arg Gly Glu Glu Gly Cys Gln
 579 20 25 30
 583 Glu Thr Ser Gln Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val
 585 35 40 45
 589 Gln Ile Val Ser Thr Ala Ala Gln Thr Phe Leu Ala Thr Cys Ile Asn
 591 50 55 60
 595 Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Thr Arg Thr Ile Ala
 597 65 70 75 80
 601 Ser Pro Lys Gly Pro Val Ile Gln Met Tyr Thr Asn Val Asp Lys Asp
 603 85 90 95
 607 Leu Val Gly Trp Pro Ala Pro Gln Gly Ser Arg Ser Leu Thr Pro Cys
 609 100 105 110
 613 Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val
 615 115 120 125
 619 Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro
 621 130 135 140
 625 Arg Pro Ile Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys
 627 145 150 155 160
 631 Pro Ala Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg
 633 165 170 175
 637 Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu Thr
 639 180 185 190
 643 Thr Met Arg Ser Pro
 645 195
 651 <210> SEQ ID NO: 15
 653 <211> LENGTH: 594
 655 <212> TYPE: DNA
 657 <213> ORGANISM: Hepatitis C virus
 661 <400> SEQUENCE: 15
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 665 tacgctcagc agactcgagg tgaggagggt tgccaagaaa cctcccgacac cggtcggtac 120
 667 aaaaaccagg ttgaagggtga agttcagatc gtttccaccc cggtcgacac ttccctggct 180
 669 acctgcatac acgggttttgc ctggaccgtt taccacgggtg ctggtaacccg taccatcgct 240
 671 tccccgaaag gtccggttat ccagatgtac accaacgttg acaaagacct ggttgggtgg 300
 673 ccggctccgc agggttcccg ttccctgacc ccgtgaccc gctgggtcccg cgacactgtac 360
 675 ctggttaccc gtcacgctga cgttatcccg gttcgtcgac gttggactc ccgtgggtcc 420
 677 ctgctgtccc cgcgtccgat ctccctacctg aaaggttccct cccgtgggtcc gctgctgtgc 480

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/965,594

DATE: 10/25/2001
TIME: 08:46:15

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\10252001\I965594.raw

L:27 M:270 C: Current Application Number differs, Replaced Current Application Number
L:29 M:271 C: Current Filing Date differs, Replaced Current Filing Date